

## ABSTRACT

A system for identifying a handset used over a communication network comprises a composite database including training data for a plurality of handset types, a plurality of support vector machines trained to identify, respectively, at least one of the plurality of handset types, and an interface operable to receive audio testing data for an unidentified handset. Each support vector machine is configured to determine its degree of recognition of the audio testing data. The system also includes a processor configured to identify unidentified handset by determining the support vector machine exhibiting the highest degree of recognition.